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Strengthening the coordinating role of the Commission on Science and Technology for Development in support of efforts by developing countries to benefit from science and technology

Report of the Secretary-General

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I. Introduction

1. In its resolution 55/185 of 20 December 2000 on strengthening the coordination of the mechanisms on the Commission for Science and Technology for Development: promoting complementarity of activities in the area of new and innovative technologies within the United Nations system, the General Assembly recognized the role of the Commission in coordinating the activities of the United Nations system in the area of science and technology for development, taking into account the cross-cutting nature of science and technology within the United Nations system and the need for effective policy guidance and better coordination; and recognized the importance of establishing and strengthening partnership and networking among the public and private sectors and academic institutions of the South and the North to build and strengthen the technological capabilities and skills needed for developing countries.

2. In the same resolution, the General Assembly called upon the Secretary-General to strengthen the Commission and its secretariat within the United Nations Conference on Trade and Development, by providing it with the necessary resources, in order to enable it to carry out better its mandate of assisting the developing countries with their national development efforts in the field of science and technology.

3. The Secretary-General was requested to submit to the General Assembly at its fifty-sixth session, through the Economic and Social Council, an analytical report on the progress made in the implementation of resolution 55/185, containing concrete proposals for strengthening the critical role of the Commission in coordinating the activities of the United Nations system in support of the efforts of developing countries to obtain, effectively utilize and benefit from science and technology for their development. The present report has been prepared in response to that request.

II. Improved coordination within the United Nations system

4. In recent years, the Economic and Social Council has undertaken a series of efforts in implementation of General Assembly resolutions on restructuring and revitalization of the United Nations in the economic, social and related fields. A major focus of those efforts is further strengthening the work of the functional commissions, in particular in regard to the coordinated follow-up to United Nations conferences and summits. This guidance has been taken into account in putting forward the proposals listed below for strengthening the work of the Commission on Science and Technology for Development so as to ensure better interaction and coordination with United Nations agencies and bodies active in science and technology and to ensure overall consistency with the working methods and approaches of the other functional commissions.

5. The most pertinent resolutions to be taken into account are Economic and Social Council resolutions 1998/46, 1999/1, 1999/51 and 1999/55. In those resolutions, the Council provided specific guidance for its functional commissions on issues such as working methods, multi-year work programmes, harmonization of work programmes among functional commissions, exchange of information between commissions and between commissions and the Council, the role of the bureaux, inter-sessional preparation of sessions, documentation and reporting.

6. Action taken by functional commissions to follow up the Council's guidance is reported annually in a consolidated report on the work of the functional commissions. The most recent report, E/2000/85, provides an overview of the steps taken by various functional commissions, including multi-year work programmes, and major issues considered.

III. Interaction between the Economic and Social Council and the Commission on Science and Technology for Development

7. In response to relevant paragraphs of General Assembly resolutions 50/227 of 24 May 1996 and 52/12 B of 19 December 1997 and Economic and Social Council resolution 1998/46, a joint meeting of the Bureau of the Council and the Bureau of the Commission on Science and Technology for Development was held via a videoconference between Geneva and New York on 17 May 1999, the last day of the fourth session of the Commission. At that meeting, the Bureau of the Commission briefed the Bureau of the Council on the work programme of the Commission and on the progress made in ensuring increased

interaction within the United Nations system. The Bureau of the Council and the Bureau of the Commission have held another joint meeting via videoconferencing between Geneva and New York on 1 June 2001. The meeting covered three important items, namely: (a) follow-up to the guidance of the Council; (b) possible contribution of the Commission to the work of the Council in 2001; and (c) enhancement of an integrated and coordinated implementation of, and follow-up to, the major United Nations conferences and summits.

8. The Bureau of the Economic and Social Council noted with satisfaction the contribution of the Commission on Science and Technology for Development to its high-level segment. The Bureau complemented the Commission for its submission, which was complete and very useful, and stated that, in fact, the Commission on Science and Technology for Development was the best functional commission in that it was the best source of information on specialized topics. That reflected the professionalism and scientific expertise of the Commission. The Bureau encouraged the Commission to contribute to the World Summit for Sustainable Development, scheduled to be held in Johannesburg, South Africa, in 2002 and to the World Summit on the Information Society, which will be held in 2003, as well as to the implementation of the United Nations Millennium Declaration.

9. In discussing the work programme of the Commission, it was noted that past and current themes of the Commission's biennial work programmes had included gender and science and technology, information and communication technologies, partnerships and networking for capacity-building, and capacity-building in biotechnology. These themes cut across the activities of other commissions and working groups. As a result, there had been cooperation with the Commission on the Status of Women, the Commission on Sustainable Development and the Commission on Investment, Technology and Related Financial Issues of the United Nations Conference on Trade and Development (UNCTAD). In addition, the Commission on Science and Technology for Development, through the UNCTAD secretariat, participated in the Inter-Agency Network for Safety in Biotechnology and in the Working Party on Biotechnology of the Organisation for Economic Cooperation and Development. In future, the Commission on Science and Technology for Development would also participate, as appropriate, in both the work of the new Information and Communication Technologies Task Force as well as in the preparations for the World Summit on the Information Society.

10. On the topic of the role of the United Nations in promoting access to and transfer of technology, particularly information and communication technologies, the Bureau of the Commission on Science and Technology for Development reminded the Economic and Social Council that it had already made a considerable contribution on the subject when it produced its book, *Knowledge Societies: Information Technology for Sustainable Development*. This publication contains comprehensive guidelines for national strategies on information and communication technologies. Furthermore, the Commission has chosen "Technology development and capacity-building for competitiveness in a digital society" as its new substantive theme for the period 2001-2003. This would allow the Commission to contribute to the Havana Programme of Action (A/55/74, annex II) and the Bangkok Plan of Action (TD/386) in the area of access to technology.

11. The members of the Bureau of the Economic and Social Council were very interested in the Commission members' suggestions for the functioning of the new Information and Communication Technologies Task Force, including proposals to link the efforts of the various international task forces on information and communication technologies, including those set up by the G-8 and the G-15. In particular, the Council desires more information on the Commission's ideas for regional hubs within the Task Force. The Commission at its fifth session had already made the suggestion that the Task Force could link up with the Science and Technology for Development Network (STDev), which had been launched during the session.

12. The Economic and Social Council noted that the present work of the Commission on Science and Technology for Development on biotechnology was very relevant to achieving sustainable development in Africa. Biotechnology has an enormous potential to support national efforts towards food security, improved health, environmental sustainability and increased competitiveness. The recommendations on the development and management of biotechnology to maximize benefits and minimize risks, if adopted by

the Council, could contribute to sustainable development.

IV. Role of the Commission on Science and Technology for Development in the coordination of work in the area of science and technology

13. The issue of coordination of the science and technology activities of the different organizations of the United Nations system has acquired increasing importance in international negotiations at the level of the General Assembly and the Economic and Social Council. Of particular importance is the crucial role of the Commission on Science and Technology for Development in providing increased coordination. The General Assembly has repeatedly stressed the need to strengthen the vital role of the United Nations in the field of science and technology, particularly through better coordination and cooperation among the various United Nations entities dealing with science and technology. The Commission has considered at its various regular sessions the issue of coordination and cooperation in science and technology within the United Nations system. The Commission expressed the view that the objective of system-wide coordination in science and technology should be to create synergies among the agencies.

14. At its fourth session, in May 1999, the Commission recognized that the issue of coordination was a complicated task. Nevertheless, the Commission underscored the need for more inter-agency interaction not only to fulfil its mandate as coordinator of science and technology activities, but also to provide leadership and direction in that area. At its fifth session, it was suggested that the newly established STDev could be used as a tool to improve coordination and collaborations of science and technology activities within the United Nations system. The STDev has been established by the United Nations Conference on Trade and Development, which is the secretariat of the Commission on Science and Technology for Development, to facilitate the sharing of information on science and technology activities within the United Nations system and with other intergovernmental organizations as well as with non-governmental organizations and to build awareness of technological and scientific developments that are particularly important for developing countries.

15. The effectiveness of the Commission has been enhanced recently, with continuous communication between its secretariat, its Bureau and Commission experts during the inter-sessional period. The Commission's work on information and communications technologies and biotechnology has been coordinated by working groups and panels to address specific issues related to the main substantive themes selected by the Commission. Efforts have been made to ensure broader participation of United Nations agencies and regional commissions in the panels of the Commission on Science and Technology for Development. Steps have also been taken to ensure wider dissemination of the reports and the outcomes of those panels, especially through electronic mail and especially through the STDev.

16. Various United Nations bodies and other international organizations were invited to participate in the Commission's panels on biotechnology. A number of organizations responded positively by sending representatives to the panels. The panels benefited from the participation of, and substantive inputs provided by, representatives of various United Nations agencies and institutes, including the United Nations University Institute for New Technologies, the World Health Organization, the United Nations Environment Programme, the United Nations Educational, Scientific and Cultural Organization, the International Centre for Genetic Engineering and Biotechnology, the Convention on Biological Diversity and UNCTAD.

A. Science and Technology for Development Network

17. Over the past few years, the UNCTAD secretariat has taken steps to establish electronic linkages as part of its dissemination activities. These include the launching of a web site for the Division on Investment, Technology and Enterprise Development in 1998 and two Internet discussion lists in 1999 (STD@topica.com and CSTD@topica.com). The web site of the Division on Investment, Technology and Enterprise Development includes information on the Division's activities in the areas of investment, enterprise development and technology for development. Information published on science and technology

within UNCTAD includes reports of meetings, proceedings of seminars, publications (a list of recent documents produced by the Division with their table of contents or a summary for most of them, and the full text of other papers), the main United Nations resolutions on science and technology and a list of current members of the Commission on Science and Technology for Development.

18. At its meeting in April 2000, the Administrative Committee on Coordination issued a statement on information technology and development in which it reaffirmed the critical role of information technology as a tool for knowledge-sharing and development, as well as a means for collaborative action in the United Nations system. It called for a comprehensive and coordinated system-wide approach to building an effective knowledge acquisition and dissemination capacity. Executive heads were requested, inter alia, to "organize a system-wide community of information technology experts and users through innovative networking arrangements, as a system-wide resource facility and consultancy service for information on options, costs, good practices and emerging developments; for use by organizations of the system for their information technology needs and for operational activities for development".

19. Partly in response to that request, the UNCTAD secretariat, in collaboration with other United Nations bodies, including regional commissions, has initiated the establishment of the Science and Technology for Development Network (STDev) (web address: www.unctad.org/stdev). The objectives of the network are the following:

(a) To provide information on activities in the area of science and technology for development (such as policies, programmes, projects, networking and partnership opportunities, publications available online) within the United Nations system and in, inter alia, other multilateral and bilateral development institutions and non-governmental organizations;

(b) To build awareness of scientific and technological developments that are of particular importance for fostering economic and social development in member States;

(c) To identify and disseminate best practices in the development assessment, transfer, adaptation and diffusion of technology.

20. Information on science and technology activities and programmes was solicited from various agencies and organizations of the United Nations system and has been incorporated into the network. The STDev is expected to evolve into a directory of those active in the field and, ultimately, into a portal or gateway on science and technology for development with continuously expanding and updated information on best practices, partnering, networking and financing opportunities for science and technology. Information on specific science and technology subjects and activities can be easily accessed through hyperlinks to relevant sources of information.

21. In addition to establishing STDev, the secretariat interacted with other United Nations bodies through participation in several joint meetings and online discussions. It has also provided inputs for the work programme of the Commission on Sustainable Development and for the report of the Secretary-General to be submitted to the coordination segment of the substantive session of 2001 of the Economic and Social Council on the role of the United Nations in promoting development, particularly with respect to access to and transfer of knowledge and technology, especially information and communication technologies, inter alia, through partnerships with relevant stakeholders, including the private sector.

22. An important decision relevant to development and coordination issues regarding science and technology in the United Nations system is the creation by the Secretary-General of the Information and Communication Technologies Task Force and the appointment of the advisory group which formulated recommendations for its establishment.

23. The Ministerial Declaration of the Economic and Social Council adopted at its high-level segment in 2000 on the role of information technology in the context of a knowledge-based global economy[1] recognized the key role of partnerships, involving national Governments, bilateral and multilateral development agencies, the private sector and other relevant stakeholders in placing information and communication technologies at the service of development. The General Assembly endorsed the Declaration at the Millennium Summit (see resolution 55/2 of 8 September 2000, para. 20).

24. Following an extensive consultation process, and on the basis of a report of the Secretary-General

(E/2001/7), the Economic and Social Council adopted a decision in March 2001 requesting the Secretary-General to take the necessary steps to establish the Information and Communication Technologies Task Force, in consultation with the regional groups, as recommended in the report. Work towards this end is ongoing, and a further report on this matter will be submitted to the Council in July.

25. At its fifth session, held in Geneva from 28 May to 1 June 2001, the Commission on Science and Technology for Development selected "Technology development and capacity-building for competitiveness in a digital society" as its main theme during the inter-sessional period 2001-2003. This theme would encompass the transfer, absorption and development of information and communication technologies to improve the competitiveness of enterprises. The work of the Commission under this theme, which is consistent with the global agenda, will contribute to the Information and Communication Technologies Task Force.

B. Collaboration with the secretariats of the functional commissions

26. There is an increase in the level of cooperation between the Commission on Science and Technology for Development and its secretariat with other bodies of the United Nations system, especially the Commission on Sustainable Development and the Commission on the Status of Women and their secretariats, the Division of Sustainable Development and the Division for the Advancement of Women. The latter has followed closely the work of the Commission on Science and Technology for Development, in particular the activities of the Gender Advisory Board, a sub-organ of the Commission. The Board was established in 1995 to examine the gender implications of science and technology. In the past (1993-1995), gender, science and technology had also been one of the substantive themes of the Commission.

27. One of the main activities of the Gender Advisory Board was to assist countries in creating national and regional gender advisory boards with funding provided by the Government of the Netherlands. Three such regional advisory boards had been set up in Indonesia, Uganda and Uruguay. The objective was to create networks to make progress on gender-based issues in the field of science and technology. Workshops would be organized to strengthen the networks. The United Nations Development Fund for Women has been very supportive of the activities of the Gender Advisory Board.

28. The Beijing Platform for Action[2] made a number of recommendations on science and technology, in particular in the critical areas of poverty, education and training, economy and the environment. Recommendations covered women's access to, and participation in, science and technology, technical training and programmes, teacher training, resources, research, appropriate technology and technology transfer. At its special session entitled "Women 2000: gender equality, development and peace for the twenty-first century", the General Assembly called for actions to facilitate access to training in science, information and technology, access to information and technology related to poverty eradication, health, economy and media, indigenous technologies and appropriate technologies.[3]

29. In implementing the Beijing Platform for Action and the outcome document of the twenty-third special session of the General Assembly, the Division for the Advancement of Women was mandated to work in the area of science, communication and technology. In the multi-year programme of work of the Commission on the Status of Women, as adopted at its forty-fifth session, the priority theme for 2003 is "Participation and access of women to the media, and information and communication technologies and their impact on and use as an instrument for the advancement and empowerment of women".[4] The Commission on Science and Technology for Development will also be able to incorporate a gender dimension into its new substantive theme on information and communication technologies.

30. The Commission on Science and Technology for Development is collaborating with UNCTAD in the organization of an ad hoc Expert Group Meeting on Industrial and Environmental Biotechnology: Implications for Development and Trade. The meeting, tentatively scheduled to be held in Geneva on 15 and 16 November 2001, will address issues related to the commercialization of biotechnology in developing countries and explore the potential industrial and environmental applications of biotechnology.

V. Action-oriented proposals to improve interaction and coordination on science and technology activities in the United Nations system

31. The main objectives of coordination should be: (a) to improve the exchange of information among agencies, organizations and intergovernmental bodies concerned with science and technology; (b) to promote joint programming and common action; and (c) to avoid duplication as much as possible and to focus on work on the basis of comparative advantages and areas of competence.

32. In view of the above, the concrete proposals described below are designed to strengthen the role of the Commission on Science and Technology for Development in coordinating science and technology activities and achieving greater interaction with other parts of the United Nations system.

A. Providing adequate resources through a trust fund

33. In addition to its role as coordinator in the area of science and technology, there is need for the Commission on Science and Technology for Development to monitor the implementation of and follow-up to the recommendations of its regular sessions. This could be done by establishing a mechanism such as a subcommittee. It would also require the establishment of a new trust fund, similar to the one for the Commission on Sustainable Development, to enable the Commission to undertake activities to implement its recommendations. During its fifth session, the Commission recommended the creation of such a trust fund at UNCTAD. This would enable the Commission to hold regular meetings with the various agencies of the United Nations system to exchange information and to engage in joint initiatives. Additional resources could be mobilized by forging partnerships with the private sector, especially in the areas of transfer of technology and capacity-building.

B. Inter-agency network for science and technology

34. To ensure greater participation by organizations and agencies in the work of the Commission on Science and Technology for Development, including in the preparation and follow-up processes, there is a need for the relevant United Nations organizations to interact more closely with the Commission. This could be done by creating a network of focal points in all those agencies. Inter-agency focal points would be responsible for the exchange of information and best practices through the STDev described above, and would participate in all sessions and panels of the Commission. Regular inter-agency meetings would also help to identify problems and challenges arising from new and innovative technologies, such as information and communication technologies and biotechnologies. More specifically, efforts could be made in those meetings to identify possible joint initiatives while avoiding duplication and overlapping of activities. A report on those meetings could be posted in the STDev and presented to the Commission under an item on the agenda dealing with coordination.

C. Coordinating science and technology at the national level

35. In its capacity as science and technology coordinator, the Commission could play an important role by assisting countries in formulating national science and technology policies, strategies, assessments and activities. A capacity-needs assessment could indicate certain weaknesses and the corresponding activities to remedy them. These assessments could be part of broader assessments on industrial and investment policies. In particular, in most developing countries, there is a gap between public and private sector efforts to develop and disseminate new technologies. The results of publicly funded research and development are rarely placed at the disposal of the private sector. Likewise, the public is most often unaware of the information on technology that is freely available. National strategies must be designed which promote the commercialization of new technologies in order to improve competitiveness and reduce poverty in developing countries.

D. Science and technology studies

36. Joint studies are an important element of inter-agency cooperation. Joint interagency and interdisciplinary teams can be established to carry out such studies. Among the joint activities of different organizations of the system, there could be efforts to develop science and technology indices. The development of science and technology indices and relevant indicators is very much needed by developing countries and countries with economies in transition in order to measure the effectiveness of their national policies and their progress in accessing, developing and using new technologies. For example, International Data Corporation produces an information society index which measures progress in a country's ability to access and adopt information technologies. Among the science and technology indicators that could be developed within the United Nations system are those that relate to capacity-building. Such indicators could give an estimate of the technological capability in different countries. Another related indicator is the relationship between research and development expenditures and competitiveness. Developing such indicators can help to assess the capacity for innovation by enterprises and countries.

E. Coordination of technical cooperation in science and technology

37. Inter-agency cooperation and public-private sector partnerships can facilitate the transfer and absorption of new technologies. Information and communication technologies have been spread through various coalitions of resources or partnerships. The Commission on Science and Technology for Development has already documented over 29 information technology projects for a transmission infrastructure, and information technology use in telecentres for health and education which are based on partnerships (see E/CN.16/2001/Misc.6). Financial constraints constitute one major obstacle to the implementation of national strategies for information and communication technologies, and partnerships can overcome this obstacle. There is also a need for providing information on the opportunities for information technology partnerships in developing countries. Such opportunities could be posted in the "Partnership Locator Facility" of the STDev.

38. With the establishment of the Information and Communication Technologies Task Force, the guidelines of the Commission on Science and Technology for Development for information and communication technology strategies could be considered when developing countries and countries with economies in transition implement the recommendations contained in Economic and Social Council resolution 1997/62, notably to formulate a national strategy for information and communication technologies and to ensure that a national focal point or commission is established to design such a strategy.

F. Follow-up to conferences and collaboration with other functional commissions

39. The work of the Commission on Science and Technology for Development should be more involved in the integrated follow-up to major United Nations conferences and summits. Collaboration between the various secretariats servicing the functional commissions needs to be made more systematic. Progress in this respect has been achieved, particularly on gender issues. For example, the secretariat of the Commission on Science and Technology for Development has provided the Division for the Advancement of Women of the Department of Economic and Social Affairs with a status report containing information on activities undertaken and progress made by the Commission in the implementation of the Beijing Declaration[5] and Platform for Action, for inclusion in the report of the Secretary-General to the General Assembly, the Commission on the Status of Women and the Economic and Social Council.

40. At its fifth session, the Commission on Science and Technology for Development recommended to the Economic and Social Council the extension of the mandate of the Gender Advisory Board until 30 June 2005. The extension of the mandate would enable the Commission and the Gender Advisory Board to improve the link between their activities. Greater efforts will also be made to ensure that the results of the work of the Gender Advisory Board are fully taken into account by the Commission for Science and Technology for Development and by UNCTAD.

41. Lastly, the work of the Commission on Science and Technology for Development is being brought to the attention of the UNCTAD Commission on Investment, Technology and Related Financial Issues. The Commission has an extensive mandate from UNCTAD at its tenth session to promote the transfer of technology to developing countries. When the Commission was reconstituted in 1992, it was encouraged to sharpen its focus and devote attention to the issues of transfer of technology and capacity. Thus, there are excellent possibilities for synergies between the two commissions.

42. A recent report prepared by the Joint Inspection Unit (JIU/REP/2001/2) to assess the United Nations system support for science and technology in Latin America and the Caribbean made a number of recommendations aimed at enhancing the coordination of science and technology activities. The report recommended that the Commission on Science and Technology for Development discuss the desirability, feasibility and timeliness of a United Nations system joint programme for science and technology, modelled on the Joint United Nations Programme on HIV/AIDS. The aim of such a joint programme would be to enable the Member States to address more comprehensively the opportunities and risks to global society and international economic relations posed by the ongoing prodigious advances in science and technology. The creation of the joint programme would give programmatic expression to the Secretary-General's key proposals on science and technology to the United Nations Millennium Summit in September 2000 (see A/55/96-E/2000/84), the Declaration of the South Summit (A/55/74, annex I), held in Havana in April 2000, and the G-8 Communiqué Okinawa 2000 (A/55/257-S/2000/766, annex), adopted at the G-8 Summit held in Okinawa, Japan, in July 2000.

Notes

[1] See *Official Records of the General Assembly, Fifty-fifth Session, Supplement No. 3* (A/55/3/Rev.1), chap. III, para. 17.

[2] *Report of the Fourth World Conference on Women, Beijing, 4-15 September 1995* (United Nations publication, Sales No. E.96.IV.13), chap. I, resolution 1, annex II.

[3] See *Official Records of the General Assembly, Twenty-third Special Session, Supplement No. 3* (A/S-23/10/Rev.1)

[4] See *Official Records of the Economic and Social Council, 2001, Supplement No. 7* (E/2001/27), chap. I, sect. A, draft resolution III.

[5] *Report of the Fourth World Conference on Women, Beijing, 4-15 September 1995* (United Nations publication, Sales No. E.96.IV.13), chap. I, resolution 1, annex I.